Vienna Instruments
Flugelhorn

Contents

Introduction

Welcome to the Vienna Symphonic Library, and thank you for purchasing one of our Vienna Instruments! This document contains the mapping information for the Vienna Instruments Flugelhorn. You will find in it a comprehensive survey of the articulations/Patches content, a listing of abbreviations, and the mapping list proper which gives details for every Patch, Matrix, and Preset.

Patch information

The Patch information includes articulation type, playing range, number of samples used, RAM requirements, the number of velocity layers and alternations, AB switching possibilities, etc., as well as Patch specific information if necessary. Here's an overview of the articulations/Patches contained in this Collection:

Short notes: Staccato, portato short and medium
Long notes: Sustained with normal, progressive, and without vibrato; marcato; upward slides with vibrato; falls
Dynamics: Medium and strong crescendo and diminuendo (4 durations each); crescendo-diminuendo with and without vibrato (4 durations each); fortepiano, sforzato, sforzatissimo
Flutter tonguing: Normal and crescendo
Interval performances: Legato with and without vibrato, portamento, fast legato, trills
Repetition performances: Legato, portato, staccato, normal and crescendo
Fast repetitions: 16ths at 140 to 200 BPM

The velocity layer switches generally are the same for patches with the same number of layers but may occasionally be adapted to the instrument's requirements. The Patch information also lists the velocity layers in detail.

Interval performances

Interval performances are one of the outstanding features of our Vienna Instruments. They allow you to play authentic legato without any programming tricks. In our Silent Stage, all intervals from minor second to the octave were recorded for every instrument – up and down, of course; that makes 24 interval samples per note for one velocity alone! When you load an interval performance Patch and play a line on your keyboard, the software automatically joins the right samples with their interval transitions again, and you hear a perfect legato. By the way, this technique is not only used for legato but also for other articulations like the strings' portamento, marcato, or détaché and spiccato articulations.

Interval performances also contain at least two legato repetitions for every note which alternate automatically whenever you strike a key more than once. There also are preconfigured thresholds for legato and repetition notes: The legato threshold – i.e., the maximum break between notes where legato is played – is 50 ms. Otherwise, a sustained starting note will sound so that you can easily start a new phrase without leaving the legato Patch. For note repetitions, the threshold is 200 ms: a break up to that duration will yield a legato repetition; if the break is longer, a new starting note. But naturally, it's mingling legato with other articulations which makes a piece really come alive.

Due to their nature, all interval performances are monophonic; otherwise, the software would have to be able to decide which source note belongs to which target note. To circumvent this, you can open two VI instances of the same instrument on separate MIDI tracks without any additional strain on your RAM.

Matrix information

Each Matrix listing contains information regarding the Patches used for the Matrix, the number of horizontal and vertical dimensions, and switching properties. A mapping table shows the Cell positions for each of the Matrix' Patches.

In order to facilitate working with **MIDI controller switches** like the Modulation wheel, the switching positions are not distributed equally across the controller range if they control more than two Matrix rows or columns; generally, the switching range will be narrower at the extreme positions because they are easy to set, and wider in the middle where it is harder to find the desired setting.

Preset information

The Preset information lists the Matrices used in the Preset as well as its keyswitches. All other information can be gathered from the Matrix and Patch listings, so there's not really much to say here. Please note that the Matrices of a Preset can also be switched with MIDI Program Changes 101–112 instead of keyboard notes, and if you like to keep your keyboard free for playing instead of switching, you can disable Preset keyswitching and only use MIDI Program Changes.

Pitch

For designating pitch, the Vienna Symphonic Library uses International Pitch Notation (IPN), which was agreed upon internationally under the auspices of the Acoustical Society of America. In this system the international standard of A=440 Hz is called A4 and middle C is C4. All pitches are written as capital letters, their respective octave being indicated by a number next to it. The lowest C on the piano is C1 (the A below that is A0), etc.

You can tune your Vienna Instruments to other players, or adjust it to tunings of earlier musical periods by setting the Perform page's Master Tune option within a range of 420 to 460 Hz.

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Patches

01 SHORT + LONG NOTES — Range: E3–F6

Staccato, portato short and medium
Sustained with normal, progressive, and without vibrato
Marcato with vibrato
Upward slides
Falls

01 FLH_staccato — **Samples: 336** — **RAM: 21 MB**

Staccato
4 velocity layers: 0–55 p; 56–88 mf; 89–108 f; 109–127 ff
4 Alternations

02 FLH_portato_short — **Samples: 352** — **RAM: 22 MB**

Portato, short
4 velocity layers: 0–55 p; 56–88 mp; 89–108 mf; 109–127 f
4 Alternations

03 FLH_portato_medium — **Samples: 276** — **RAM: 17 MB**

Portato, medium
3 velocity layers: 0–55 p; 56–108 mf; 109–127 f
4 Alternations

11 FLH_sus_Vib — **Samples: 425** — **RAM: 26 MB**

Sustained, with vibrato
4 velocity layers: 0–55 p; 56–88 mf; 89–108 f; 109–127 ff
Release samples
3 Alternations
AB switch: release normal/falls

12 FLH_sus_Vib-progr — **Samples: 355** — **RAM: 22 MB**

Sustained, with progressive vibrato
3 velocity layers: 0–55 p; 56–108 mf; 109–127 f
Release samples
3 Alternations
AB switch: release normal/falls

13 FLH_sus_Vib-marc — **Samples: 92** — **RAM: 5 MB**

Sustained, marcato with vibrato
2 velocity layers: 0–88 mf; 89–127 f

14 FLH_sus_Vib-slide **Samples: 206** **RAM: 12 MB**

Sustained, upward slides, with vibrato
3 velocity layers: 0–55 p; 56–108 mf; 109–127 f
Release samples
AB switch: release normal/falls

15 FLH_sus_noVib **Samples: 425** **RAM: 26 MB**

Sustained, without vibrato
4 velocity layers: 0–55 p; 56–88 mf; 89–108 f; 109–127 ff
Release samples
3 Alternations
AB switch: release normal/falls

21 FLH_falls **Samples: 57** **RAM: 3 MB**

Falls
3 velocity layers: 0–55 p; 56–108 mf; 109–127 f

02 DYNAMICS Range: E3–F6

Medium crescendo and diminuendo with vibrato, 1.5, 2, 3, and 4 sec.
Strong crescendo and diminuendo, without vibrato, 1.5, 2, 3, and 4 sec.
Crescendo-diminuendo with and without vibrato, 2, 3, 4, and 6 sec.
Fortepiano, sforzato, sforzatissimo

01 FLH_dyn-me_Vib_1'5s (2/3/4) **Samples: 92** **RAM: 5 MB**

Medium crescendo and diminuendo, with vibrato, 1.5, 2, 3, and 4 sec.
2 velocity layers: 0–88 p-mf/mf-p; 89–127 mf-f/f-mf
AB switch: crescendo/diminuendo

11 FLH_dyn-str_noVib_1'5s (2/3/4) **Samples: 46** **RAM: 2 MB**

Strong crescendo and diminuendo, without vibrato, 1.5, 2, 3, and 4 sec.
1 velocity layer
AB switch: crescendo/diminuendo

21 FLH_pfp_Vib_2s (3/4/6) **Samples: 46** **RAM: 2 MB**

Crescendo-diminuendo with vibrato, 2, 3, 4, and 6 sec.
2 velocity layers: 0–88 p; 89–127 f

31 FLH_pfp_noVib_2s (3/4/6) **Samples: 46** **RAM: 2 MB**

Crescendo-diminuendo without vibrato, 2, 3, 4, and 6 sec.
2 velocity layers: 0–88 p; 89–127 f

41 FLH_fp **Samples: 69** **RAM: 4 MB**

Fortepiano
1 velocity layer
3 Alternations

42 FLH_sfz **Samples: 69** **RAM: 4 MB**

Sforzato
1 velocity layer
3 Alternations

43 FLH_sffz **Samples: 69** **RAM: 4 MB**

Sforzatissimo
1 velocity layer
3 Alternations

03 FLATTER **Range: E3–C6**

Flutter tonguing, normal and crescendo

01 FLH_flatter **Samples: 40** **RAM: 2 MB**

Flutter tonguing, sustained
1 velocity layer: 0–127 f
Release samples

02 FLH_flatter_cre **Samples: 20** **RAM: 1 MB**

Flutter tonguing, crescendo

10 PERF INTERVAL

Legato with and without vibrato
Portamento

01 FLH_perf-legato_Vib **Range: E3–E6** **Samples: 953** **RAM: 59 MB**

Legato, with vibrato
Monophonic
2 velocity layers: 0–88 p; 89–127 f
Release samples
AB switch: release normal/falls

02 FLH_perf-legato_noVib **Range: E3–F6** **Samples: 1028** **RAM: 64 MB**

Legato, without vibrato
Monophonic
3 velocity layers: 0–55p; 56–88 mf; 89–127 f
Release samples
AB switch: release normal/falls

03 FLH_perf-portamento **Range: E3–D6** **Samples: 923** **RAM: 57 MB**

Portamento
Monophonic
2 velocity layers: 0–88 p; 89–127 f
Release samples
AB switch: release normal/falls

11 PERF INTERVAL FAST — Range: E3–E6

Legato, fast

01 FLH_perf-legato_fa — Samples: 965 — RAM: 60 MB

Legato, fast
Monophonic
2 velocity layers: 0–88 p; 89–127 f
Release samples
AB switch: release normal/falls

12 PERF TRILL — Range: E3–E6

Trills, minor and major 2nd

01 FLH_perf-trill — Samples: 1685 — RAM: 105 MB

Trills, minor and major 2nd; all other intervals legato
Monophonic
2 velocity layers: 0–88 p; 89–127 f
Release samples
AB switch: release normal/falls

13 PERF REPETITION — Range: E3–F6

Legato, portato, staccato
Legato crescendo, 5 repetitions
Portato and staccato crescendo, 9 repetitions

01 FLH_perf-rep_leg — Samples: 345 — RAM: 21 MB

Legato repetitions
3 velocity layers: 0–55 p; 56–108 mf; 109–127 ff

02 FLH_perf-rep_por — Samples: 594 — RAM: 37 MB

Portato repetitions
3 velocity layers: 0–55 p; 56–108 mf; 109–127 ff

03 FLH_perf-rep_sta — Samples: 594 — RAM: 37 MB

Staccato repetitions
3 velocity layers: 0–55 p; 56–108 mf; 109–127 ff

11 FLH_perf-rep_cre5_leg — Samples: 115 — RAM: 7 MB

Legato crescendo, 5 repetitions
1 velocity layer

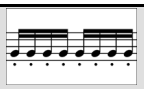
12 FLH_perf-rep_cre9_por — Samples: 198 — RAM: 12 MB

Portato crescendo, 9 repetitions
1 velocity layer

13 FLH_perf-rep_cre9_sta **Samples: 198** **RAM: 12 MB**

Staccato crescendo, 9 repetitions
1 velocity layer

15 FAST REPETITION **Range: E3–E6**



Staccato, 16 repetitions
16ths at 140 to 200 BPM

01 FLH_fast-rep_140 (150/160/170/180/190/200) **Samples: 132** **RAM: 8 MB**

Staccato, 16 repetitions
16ths at 140 to 200 BPM

98 RESOURCES

01 Perf Rep dyn **Range: E3–F6**

Extracted repetitions, legato, portato, and staccato

01 FLH_rep_cre5_leg-1 (2/3/4/5) **Samples: 23** **RAM: 1 MB**

Extracted repetitions: Legato, crescendo, 1st to 5th repetition
1 velocity layer

02 FLH_rep_cre9_por-1 (2/3/4/5/6/7/8/9) **Samples: 22** **RAM: 1 MB**

Extracted repetitions: Portato, crescendo, 1st to 9th repetition
1 velocity layer

03 FLH_rep_cre9_sta-1 (2/3/4/5/6/7/8/9) **Samples: 22** **RAM: 1 MB**

Extracted repetitions: Staccato, crescendo, 1st to 9th repetition
1 velocity layer

99 RELEASE

This section contains release samples for various patches of the other sections. Please do not try to load them into a Vienna Instruments Matrix – you will not be able to hear anything when you try to play them.

Matrices

Matrix - A Standard-Advanced

01 FLH Articulation Combi

Samples: 2138 RAM: 133 MB

Staccato, portato short and medium
Sustained with normal, without, and with progressive vibrato
Fortepiano, sforzato, sforzatissimo
Flutter tonguing normal and crescendo

Matrix switches: Horizontal: Keyswitches, C1–D#1 Vertical: Modwheel, 3 zones

	C1	C#1	D1	D#1
V1	staccato	sus vibrato	fortepiano	flutter normal
V2	portato short	sus no vibrato	sforzato	flutter crescendo
V3	portato medium	sus prog. vibrato	sforzatissimo	flutter crescendo

04 FLH Short+Long notes

Samples: 2020 RAM: 126 MB

Staccato, portato short and medium
Sustained without, with normal and progressive vibrato, and marcato
Slides, sustained with vibrato
Falls

Matrix switches: Horizontal: Keyswitches, C1–D#1 Vertical: Modwheel, 3 zones

	C1	C#1	D1	D#1
V1	staccato	sus vibrato	sus no vibrato	falls
V2	portato short	sus marcato vibrato	sus prog. vibrato	falls
V3	portato medium	sus slide vibrato	sus prog. vibrato	falls

05 FLH Dynamics

Samples: 1103 RAM: 68 MB

Dynamics
Medium and strong crescendo and diminuendo, 1.5, 2, 3, and 4 sec.
Crescendo-diminuendo, 2, 3, 4, and 6 sec.
Fortepiano, sforzato, sforzatissimo
AB switch: crescendo/diminuendo

Matrix switches: Horizontal: Keyswitches, C1–D#1 Vertical: Modwheel, 5 zones

	C1	C#1	D1	D#1
dyn.medium	1.5 sec.	2 sec.	3 sec.	4 sec.
dyn.strong	1.5 sec.	2 sec.	3 sec.	4 sec.
pfp vib.	2 sec.	3 sec.	4 sec.	6 sec.
pfp no vib.	2 sec.	3 sec.	4 sec.	6 sec.
sfz	fp	sfz	sffz	sffz

Matrix - B Repetitions

11 FLH Perf-Repetitions - Combi

Samples: 1533 RAM: 95 MB

Repetition performances: Legato, portato, staccato

Matrix switches: Horizontal: Keyswitches, C1–D1

	C1	C#1	D1
repetitions	legato	portato	staccato

12 FLH Perf-Repetitions - Speed

Samples: 1533 RAM: 95 MB

Repetition performances: Legato, portato, staccato
Speed controller

Matrix switches: Horizontal: Speed, 3 zones

	H1	H2	H3
repetitions	legato	portato	staccato

13 FLH Fast-Repetitions

Samples: 528 RAM: 33 MB

Fast repetitions, 140 to 200 BPM

Matrix switches: Horizontal: Keyswitches, C1–F#1

	C1	C#1	D1	D#1	E1	F1	F#1
speed/BPM	140	150	160	170	180	190	200

Matrix - C Keyswitch Vel

21 FLH Legato - cre5

Samples: 115 RAM: 7 MB

Legato notes: Crescendo, keyswitch velocity
Keyswitches control 5 dynamic steps

Matrix switches: Horizontal: Keyswitches, C1–E1

	C1	C#1	D1	D#1	E1
legato	1st	2nd	3rd	4th	5th

22 FLH Portato - cre9

Samples: 198 RAM: 12 MB

Portato notes: Crescendo, keyswitch velocity
Keyswitches control 9 dynamic steps

Matrix switches: Horizontal: Keyswitches, C1–G#1

	C1	C#1	D1	D#1	E1	F1	F#1	G1	G#1
portato	1st	2nd	3rd	4th	5th	6th	7th	8th	9th

23 FLH Staccato - cre9

Samples: 198 RAM: 12 MB

Staccato notes: Crescendo, keyswitch velocity
Keyswitches control 9 dynamic steps

Matrix switches: Horizontal: Keyswitches, C1–G#1

	C1	C#1	D1	D#1	E1	F1	F#1	G1	G#1
staccato	1st	2nd	3rd	4th	5th	6th	7th	8th	9th

24 FLH Combi - cre9 **Samples: 396 RAM: 24 MB**

Portato, staccato: Crescendo, keyswitch velocity
Keyswitches control 9 dynamic steps

Matrix switches: Horizontal: Keyswitches, C1–G#1 Vertical: Modwheel, 2 zones

	C1	C#1	D1	D#1	E1	F1	F#1	G1	G#1
portato	1st	2nd	3rd	4th	5th	6th	7th	8th	9th
staccato	1st	2nd	3rd	4th	5th	6th	7th	8th	9th

Presets

FLH VSL Preset **Samples: 6779 RAM: 423 MB**

Matrices:
02 FLH Perf-Legato Speed
03 FLH Perf-Trill Speed
01 FLH Articulation Combi
11 FLH Perf-Repetitions - Combi
24 FLH Combi - cre9
13 FLH Fast-Repetitions
Matrix keyswitches: C2–F2